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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,183	11/24/2003	Robert Stanley Kolman	10030573-1	7018

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EXAMINER	
LE, TOAN M	

ART UNIT	PAPER NUMBER
2863	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/722,183	KOLMAN ET AL.	
	Examiner	Art Unit	
	Toan M. Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,10-16,19 and 20* is/are rejected.

7)☒ Claim(s) *8,9,17 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 10-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colby et al. (US Patent No. 6,622,271) and further in view of Gygi et al. (US Pub No. 2003/0235156 A1).

Referring to claim 1, Colby et al. disclose an apparatus, comprising:

computer readable media; and

program code, stored on the computer readable media (figures 1A and 1B), comprising:

code to define a user interface 72 (figure 1A) (col. 4, lines 41-48);

code to detect invalid test definition data in user input (col. 4, lines 54-67 to col. 5, lines 1-4; col. 11, lines 45-57; col. 12, lines 20-29); and

code to receive a valid data option selected through the user interface, and to update the invalid test definition data with the valid data option (col. 11, lines 52-57).

As to claim 6, Colby et al. disclose an apparatus, wherein at least some of said user input is received through said user interface (figures 1A and 1B).

Referring to claim 7, Colby et al. disclose an apparatus, wherein at least some of said user input is contained in a test definition file (col. 6, lines 19-39; col. 11, lines 58-67 to col. 12, lines 1-2).

Referring to claim 11, Colby et al. disclose an apparatus, wherein the user interface comprises code to define an input area to receive a specification for invalid test definition data that has been detected as invalid because it lacks a specification to make it valid (col. 12, lines 20-29).

As to claim 12, Colby et al. disclose an apparatus, wherein said input area to receive a specification for invalid test definition data is configured to receive a data type (col. 12, lines 20-29).

As to claim 14, Colby et al. disclose a computer-based method, comprising:

parsing user input to detect invalid test definition data in the user input (col. 4, lines 54-67 to col. 5, lines 1-4; col. 11, lines 45-57; col. 12, lines 20-29);

upon receiving a valid data option selected from the set of valid data options, updating the invalid test definition data with the valid data option (col. 11, lines 55-57); and

generating circuit test data structures to control an automated circuit tester (figures 1A, 1B, 4-5).

Referring to claim 15, Colby et al. disclose a computer-based method, wherein parsing user input comprises parsing a test definition file (col. 6, lines 19-39; col. 11, lines 58-67 to col. 12, lines 1-2).

As to claim 16, Colby et al. disclose a computer-based method, further comprising compiling the set of valid data options based on a context of the invalid data (col. 5, lines 44-48).

As to claim 19, Colby et al. disclose a computer-based method, comprising:

parsing source code for generating circuit test data structures, to identify type name definitions and enumeration constant definitions contained in said source code (figures 4-5; col. 10, lines 34-41);

generating a string table from said type name and enumeration constant definitions (figures 4-5; col. 10, lines 34-41); and

linking said string table to an input validation and error messaging portion of said source code to i) cause said source code to index said string table upon detection of invalid test definition data in user input (col. 10, lines 22-41).

Referring to claim 20, Colby et al. disclose a computer-based method, wherein said index into said string table comprises a context of said invalid test definition data (col. 5, lines 44-48).

Colby et al. do not teach upon detection of invalid test definition data, prompt a user to select a valid data option from a set of valid data option, said prompting being undertaken through the user interface, code to

compile the set of valid data options based on a context of the invalid test definition data *as in claim 2* to index a table of valid data options as in claim 3, to parse the user input and log valid data options into the table as in claim 4, wherein the context comprises a data type as in claim 5, the code to configure how the set of valid data options is displayed through the user interface as in claim 10, and the set of valid data options comprises a single valid data option that is replaceable by the user as in claim 13, or cause a set of valid data options retrieved from the string table to be displayed to a user for user selection as in claim 19.

Gygi et al. disclose an apparatus, comprising :

computer readable media; and

program code, stored on the computer readable media, comprising:

code to define a user interface;

code to detect invalid test definition data in user input and, upon detection of invalid test definition data, prompt a user to select a valid data option from a set of valid data option, said prompting being undertaken through the user interface, *code to compile the set of valid data options based on a context of the invalid test definition data* to index a table of valid data options, to parse the user input and log valid data options into the table, wherein the context comprises a data type, the code to configure how the set of valid data options is displayed through the user interface, and the set of valid data options comprises a single valid data option that is replaceable by the user, and cause a set of valid data options retrieved from the string table to be displayed to a user for user selection ([0048], [0050], [0051], [0068], and [0069].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have applied the teaching of Gygi et al. into the reference of Colby et al. to assist automated testing systems through standardized user interface and programming interface for performing circuit tests.

Allowable Subject Matter

Claims 8-9 and 17-18 are objected to as being dependent upon a rejected base claims 1 and 14, respectively, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for allowance of claims 8-9 and 17-18 is the inclusion of the code that prompts a user to select a valid data option causes the set of valid data options to be displayed through the user interface in alphabetical order and in order of highest likelihood of correctness.

Response to Arguments

Applicant's arguments filed 10/4/07 have been fully considered but they are not persuasive.

Referring to claim 1, Applicant argues that "Applicant cannot find any teaching by Gygi that invalid test definition data should be 'detected', or that a user should be prompted 'upon detection of invalid test definition data'. As such, Applicants believe Gygi lacks any sort of teaching or suggestion that would motivate of ordinary skill in the art to incorporate Gygi's 'parameter definition' interface into the interface 137 associated with Colby's interpreter program 131.... The lack of any teaching or suggestion to combine Colby's and Gygi's teachings is likely a result of differences in Colby's and Gygi's systems. That is, Colby discloses a test system wherein an already developed 'test definition' is executed, and if errors are generated during execution of the test definition, a user is given an ability to modify the test definition, Gygi's system, on the other hand, is directed more to the front-end of 'test vehicle' development. As a result, it enables a test developer to provide 'custom commands' and 'parameter definitions' that encourage or force a test system operator to select valid test parameters before a test vehicle is started. In other words, Colby's system is really a 'curative' system, whereas Gygi's system is a 'preventive' system."

Applicant also argues that "With respect to Applicant's claim 2, the Examiner asserts that Gygi teaches 'code to compile that set of a valid data options based on a context of the invalid test definition data', in one more of paragraphs [0048], [0050], [0051, [0068], or [0069]. Applicants have reviewed these paragraphs and can find no such teaching."

Answer: Colby teaches code to detect invalid test definition data in user input (col. 4, lines 54-67 to col. 5, lines 1-4 and col. 11, lines 45-57 and col. 12, lines 20-29) such as "If the rules checker program 76 detects a problem, it will provide a message at 79 to the test definition generator 71, so that a warning message can be presented to the operator." (col. 5, lines 1-4) Or "If a problem is detected, then a warning message is provided to the operator, so that appropriate adjustments can be made to the test definition 73." (col. 11, lines 52-55). "If any errors are detected, the interpreter program 131 will provide the operator with an identification of those errors. The operator has the capability to carry out certain debug functions of a standard type, such as setting breakpoints, dynamically changing the values of variables, and so forth. Further, the operator can instruct the interpreter program 131 to maker changes to the modified test definition 301, for example to correct errors which were present in the initial test definition 73, or to implement special test conditions to help identify an elusive problem in a particular device 12." (col. 12, lines 20-29) Even though Colby does not specifically mention "upon detection of an invalid test definition data, prompt a user to select a valid data option from a set of valid data options, said prompting being undertaken through the user interface."

Gygi discloses "The invention also includes a flexible command, status and parameter definition language that permits a test designer to define a wide variety of custom commands, test specific status and test parameters to be supplied by the test operator in starting a selected test vehicle. Parameters of test vehicles may be defined in the definition language. Status information unique to a particular test may also be defined by the language. In addition, entire custom commands may be defined by the language. *The definitions includes types and ranges of permissible values as well as user interface information to prompt the test operator for desired values*. ([0048])

Gygi also discloses "This flexible language is provided as a portion of the test vehicle and defines the user interface to be provided to the test operator to supply requisite parameters to start a test. The command language includes a number of keywords or directive to define the nature of each parameter to be supplied to the test vehicle on startup. *Fields of the keywords to define a parameter also include text used to present*

readable options to the test operator to select desired values for the various parameters of the test vehicle."
([0050])

Gygi further discloses "The "parameter" keyword allows the test designer or operator to specify different parameters types and use them in the test or in custom tests (defined by the "command" keyword discussed below). Fields of the parameter keyword allow the parameter to be defined as a specific type such as a numeric value or a list of enumerated values for the user to choose from (i.e., *a list of options*). Additional fields of the parameter keyword provide default values for the parameter to assume if the operator does not specify a value for the parameter when prompted to do so. Still other fields allow a test designer to provide textual help messages to describe, for example, the usage of the parameter or permissible values for the parameter." ([0051]).

Thus, Colby teaches code to detect invalid test definition data in user input by providing the operator with an identification of those errors/invalid test definition. And Gygi teaches upon detection of invalid test definition data, prompt a user to select a valid data option from a set of valid data options, said prompting being undertaken through the user interface by having definitions includes types and range of permissible values as well as user interface information to prompt the test operator for desired values including text used to present readable options to the test operator to select desired values for the various parameters of the test vehicle by defining specific type such as a numeric value or a list of enumerated values for the user to choose from (i.e. a list of options) so that it would have been obvious to one having ordinary skill in the art to combine the teaching of Colby's and Gygi's for improving a single test definition in a tester independent language with multiple different test systems. By the way, Gygi teaches code to compile the set of valid data options based on a context of the invalid test definition data through t*he definitions includes types and ranges of permissible values as well as user interface information to prompt the test operator for desired values.*

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toan Le

December 23, 2007

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